

What is claimed is:

1. A method for monitoring an internal combustion engine, in which fuel is injected directly into at least one combustion chamber in at least two partial injections, using at least one final controlling element, where an actual torque of the internal combustion engine is determined, based on at least one injected fuel mass and/or one fuel mass to be injected, this actual torque being compared to a permitted torque of the internal combustion engine and an error response being initiated, if the actual torque is at a predefined ratio to the permitted torque, wherein a total fuel volume of the partial injections is taken into account for determining the fuel mass that is to be injected and/or has been injected.
2. The method as recited in Claim 1, wherein a fuel volume of a partial injection is determined, based on at least an actuation time of the pertinent final controlling element, and on the pressure acting on the fuel.
3. The method as recited in Claim 1, wherein a fuel volume of a partial injection is determined based on at least an actuation time of the pertinent final controlling element and a variable characterizing the actuation start.
4. The method as recited in Claim 2, wherein a total fuel volume of a combustion cycle is determined from the sum of the fuel volume of all partial injections.
5. The method as recited in Claim 3, wherein a fuel mass is determined from the total fuel volume, using a fuel density (ρ).

6. The method as recited in Claim 4,
wherein the fuel mass is linked to a wave correction
mass to yield a corrected fuel mass.
7. The method as recited in Claim 5,
wherein a torque of the internal combustion engine is
determined (21) on the basis of at least the corrected
fuel mass and a rotational speed (n) of the internal
combustion engine.
8. The method as recited in Claim 6,
wherein the determined torque of the internal
combustion engine is linked to an efficiency correction
factor to yield a corrected torque of the internal
combustion engine.
9. The method as recited in Claim 5,
wherein the wave correction mass is determined on the
basis of at least the fuel volume of the partial
injections and of the pressure acting on the fuel.
10. The method as recited in Claim 1,
wherein the error response is initiated when the actual
torque is greater than the permitted torque.
11. The method as recited in Claim 2,
wherein the determined fuel volume is corrected as a
function of the start of actuation of the corresponding
final controlling element.
12. The method as recited in Claim 10,
wherein a correction factor for correcting is taken
from an injection efficiency characteristic map, which
is a function of the actuation start.

13. Use of the method as recited in one or more of the preceding claims for monitoring a direct injection diesel engine.
14. A device for performing the method as recited in one or more of Claims 1 through 13.